

ON THE THERAPEUTICAL USES OF TEREBINTHINATE MEDICINES.

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It has often occurred to me, and I have no doubt even to the most cursory observers, how few of the medicines, out of our long catalogue of remedies, are really found to answer the expectation in the hour of need. The ills to which flesh is heir, are sufficiently numerous and oftentimes puzzling enough; but the means of combating them, are neither so ample nor so decisive, as the catalogue of our *materia medica* would induce us to believe. It may fairly be questioned, if the present generation has discovered (with the exception of chloroform) a single specific, or invented any new remedy, however much it may have extended the use and improved the knowledge of the properties of those already known. Chemical science, it is true, has succeeded in isolating the active principles of some of our more potent remedies; but in accomplishing this, it has not, in every instance, rendered the concentrated preparation equally efficacious with the old. Quinine cannot always be considered as a substitute for bark; neither can morphia at all times be prescribed for the same cases, and with the same beneficial results, as opium. Notwithstanding these drawbacks, the chemist has been of essential service to the medical practitioner.

It is an excellent habit to review, at stated periods, our past practice; to compare the various epidemics and disorders which have occurred in our times, with those of past ages—to investigate their causes, the means which have proved most efficient in their treatment, and the reasons of the success or failure of our remedial efforts. On looking over my notes, I have been both pleased and gratified to find one class of medicaments which have rarely failed to answer the object for which they were prescribed. The Terebinthinate drugs have, from time immemorial, enjoyed a high reputation as valuable auxiliaries in allaying, arresting, or removing disease. In private as well as in public practice, I have prescribed them extensively, internally and externally, in the forms of potion, liniment and lavement, with the happiest results. Hence I naturally feel a strong partiality for their employment. I have had sufficient opportunity for testing their utility, in upwards of seven hundred cases; and I do not recollect an instance of any unfavourable symptom supervening on their exhibition, except in the following case: An aged female, who had repeatedly taken large doses of turpentine for the expulsion of tapeworm without effect, applied to me for advice. I prescribed the following; \mathfrak{R} Olei terebinthinæ $\mathfrak{z}\text{i}$; olei ricini $\mathfrak{z}\text{ss}$;—fiat haustus. To be taken directly, and repeated in three hours. Shortly after the second dose, she complained of vertigo, and vomited profusely; violent hypercatharsis followed, with intense pain in the region of the kidneys; and the worm was voided two hours after the second dose. In forty-eight hours, she had completely recovered from these unpleasant symptoms; nor had she ever, to my knowledge, occasion to regret the severity of the means adopted for her relief.

The silence of writers on forensic medicine on the injurious conse-

quences, resulting from an overdose of the oil of turpentine, may be considered as a strong corroborative testimony in its favour. Christison has never heard of a fatal case. Mr. John Headman, however, mentions the case of a woman sixty-one years of age, whose death was occasioned by this drug in twenty-five days—dose not stated. Dr. Duprès is supposed to have fallen a sacrifice to inflammation of the urinary organs, occasioned by too large a dose of this drug, continued for too long a period.

HISTORY. The Terebinthinate drugs have, for centuries, had a high and distinguished place in the *materia medica*. They belong to a family, of which it has been justly observed by a writer in the *Dictionnaire de Matière Médicale*, “C’est une des plus importantes du règne végétal sous le rapport de ses produits, tous doués de beaucoup d’activité.”

In the works of Hippocrates, Celsus, Dioscorides, Aretæus, Avicenna, Rhases, Galen, Serapion, Boerhaave, Van Swieten, etc., we find frequent allusions to the Turpentine. The name, derived from the Greek *τερέω*, (I bore or perforate), in reference to the way in which it was obtained from the tree, evidently implies a knowledge of the liquid species. In that state, I believe it to have been generally used as an internal remedy. Aretæus distinctly alludes to the liquid form, and recommends it as useful in enemata; he prescribed the Turpentine largely in various maladies, and like the Roman Physician, Celsus, considered them especially valuable in pectoral disorders. Pliny, like Dioscorides, divides the Turpentine into two species, “*Gummæ species duæ, sicca et liquida.*” In the polypharmacy of the middle ages, the Terebinthinate and balsams constituted some of the most active ingredients of which their multitudinous formulæ consisted.

Towards the close of the seventeenth century, the Turpentine, like many other medicines of intrinsic value, lost their ground in public estimation; nor was it until the dawn of the nineteenth century, that physicians deemed them of sufficient importance to be employed as internal remedies in the treatment of other diseases than those of the urinary organs. Yonge, and subsequently the celebrated Hunter, were amongst the first to revive their use as styptics. The Dublin physicians were not long in making trial of them in some of the most severe affections to which the human frame is obnoxious. In America, they have been proved to be of eminent service in many febrile diseases. In France, they soon attained a high position as remedies in neuralgic and rheumatic disorders. Amongst the Hungarians, they are considered a sovereign remedy against all kinds of coughs and bronchial affections. Some of the most eminent medical practitioners of Great Britain have, within the last thirty years, strongly insisted upon their use in almost every malady for which they had previously been regarded by the ancients as most efficacious. Without disparaging the labours of others, the meed of praise is justly due to Dr. Copland for the high reputation which the Terebinthinate preparations have now attained.

PHYSICAL AND CHEMICAL PROPERTIES, AND MODE OF PREPARATION. In the market, there are several kinds of drugs known by the name of Turpentine; and, though differing in many distinctive peculiarities from each other, they nevertheless, in essential properties, are dependent

upon the same principles—a volatile oil and a resinous residuum. The true Turpentine is distinguished from the balsams, with which they are not infrequently confounded, by the former containing succinic acid, the latter benzoic. In distilling these Turpentine over caustic lime, a very pure spirit is obtained, of low specific gravity, to which the name of camphine has been applied, and which is now pretty extensively used for the purpose of giving light in private dwellings, in lieu of oil. The greater portion of the common Turpentine which is met with in this country, is imported from America, and is chiefly procured from the *pinus palustris*, in the following manner. A portion of the tree is scooped out, a short distance from the ground, and the bark is removed for several inches above. During the summer months, the Turpentine flows into the hollows thus formed, and is then collected for exportation. It has a warm acrid bitterish taste, a peculiar aromatic odour, is of a soft consistency, and of a yellowish white appearance. Oil of Turpentine is obtained from this substance, by distilling it with water in an ordinary common still. Oil or spirit of Turpentine, as it is frequently called, when prepared according to the directions of the *London Pharmacopœia*,—that is, by adding four parts of water to one of oil of Turpentine, and carefully distilling, ought to have a specific gravity 0·86 at 60 Fah., to boil at 314, to have a slightly acid reaction, and to be completely soluble in six parts of sulphuric ether. This oil is quickly dissolved by hot alcohol, but readily separated in drops as the spirit cools. Oil of turpentine is considered by Blanchett and Sell, to consist of two isomeric oils, dadyl and peucyl; but as the boiling point of oil of Turpentine is less than the boiling point of those two oils, Pereira treats them as educts, not products. An artificial camphor may also be obtained from highly rectified oil of Turpentine, by passing a stream of oxygen gas through it. The analogy between camphor and oil of Turpentine is very strong,—the leading characters of the former being those of a concrete volatile oil.

Pure oil of Turpentine for medical purposes ought always to be distilled over caustic potash, lime, or soda. A specimen of the oil thus prepared by Mr. Bullock, operative chemist, Conduit Street, which is now lying before me, is perfectly pure, neutral, has rather a sweetish taste, and a peculiar aromatic odour; and when its flavour is disguised by a small quantity of the essential oil of bitter almonds, it is not particularly disagreeable to the palate. This oil of Turpentine, as prepared by Mr. Bullock, is very different from the camphine of commerce, which, though neutral and of very low specific gravity 0·60 (Price's), has a disagreeable saponaceous taste. As an external counter-irritant, it is much more rapid in its action than oil of Turpentine, and I always prefer it where it can be obtained, where it is important to produce severe or immediate counter-irritation. Perhaps one of the objections against the daily employment of the oil of Turpentine in cases specially adapted for its use, may have arisen from its nauseous flavour, and its tendency to impart its odour to the eructations which it not unfrequently occasions. To obviate these inconveniences, Dr. Nimmo, of Glasgow, proposed a method of freeing oil of Turpentine from all unpleasant taste and smell, by a very simple process, without sacrificing any of its essential properties. There can be no doubt that oil of Turpentine, prepared according

to this plan, may be kept for several months. I lately possessed a specimen of the oil, devoid of all unpleasant odour, of which it had been deprived more than six months previously. Oil of this description, when exposed to light and air, very soon re-acquires the peculiar Terebinthinaceous character; it ought, therefore, to be preserved in small bottles, well-corked, each containing not more than half an ounce each, and only used for extemporaneous prescription. When flavoured with any essential oil, such as lemon, cinnamon, verbena, or prussic acid, it may be taken, without creating the slightest inconvenience, or disgusting the most fastidious palate. To render this medicine free from smell or taste, take eight parts of purified oil of Turpentine and one part of the strongest alcohol; agitate briskly, and then let it stand some time; pour off the alcohol, then add a fresh quantity to the Turpentine; proceed as before, and repeat the process until it has lost its peculiar taste and smell. Turpentine, when thus prepared, leaves no residuum on evaporation.

According to Pereira, the ultimate composition of the purified oil of Turpentine, is

20 Atoms of Carbon— 6×20	...	120
16 ,, Hydrogen	16
		<hr/> 136

Nitric acid resinifies oil of Turpentine; and the resin, after long boiling, is converted into crystals of Turpentine acid.

Chian or Cyprus Turpentine is very often prescribed by some practitioners where the Terebinthinates are indicated, because it does not possess the same unpleasant taste, and easily can be given in the form of pills. Though I have prescribed it frequently, I have never found it so useful as the essential oil, in some states of the bladder and urinary organs. This kind of Turpentine, the Canadian balsam or Venice Turpentine, may have advantages; but, as a general rule, when the medicine is deemed requisite, the purified oil ought to be given.

PHYSIOLOGICAL EFFECTS. Turpentine, when taken internally, exerts a peculiar action on the mucous surfaces, and the tissues superimposed upon them: it increases the peristaltic motion of the bowels, inducing purgation, and, in very large doses, hypercatharsis; it promotes the flow of urine, impregnating it with a violet odour; and if its action be specially directed to the kidneys, may produce strangury and bloody micturition. It determines to the skin, producing copious and free diaphoresis, sometimes attended with an itchy eruption. It also taints the pulmonary exhalation with its characteristic smell. A large dose has been taken internally, and failed to produce action of the bowels or kidneys; the vapour of the Turpentine has then been discharged through the skin and pulmonary organs; this was the case with the experiment that Dr. Copland instituted upon himself. I once gave half an ounce to a boy of sixteen years of age, which occasioned no other unpleasant symptoms, than an increase of the respiratory movements, and acceleration of the circulation, with a tendency to somnolency, followed by a profuse discharge from the urinary organs. The breath and perspiration were tainted with a Turpentine odour for upwards of a week; the bowels remained inactive until he had taken

eight ounces of the compound infusion of senna, with ten grains of calomel: the evacuations when passed were extremely foetid, black, and slimy, but giving off no smell of Turpentine. Hertwig injected two drachms into the veins of a horse; trembling, reeling, with inclination to pass stools, and frequent micturition ensued. Fever and bronchitis were set up, and the animal died in nine days. Schubert found that two drachms given to a dog caused tetanus and death in three minutes. I once saw half a drachm administered to a young cat: the poor creature mewed piteously, was extremely restless for several hours, and had constant micturition, unaccompanied with diarrhoea; after some hours, it fell into a profound lethargy, from which it awoke perfectly well; its eyes remained injected for several days.

Turpentine seems peculiarly destructive to vegetable existence. Small insects are speedily destroyed by it; indeed, no other drug appears to exert so fatal an influence over the majority of parasites which infest animal and vegetable life.

When taken internally, it has been detected in the various secretions of the human body. Todd and Johnson have met with it in the kidneys of a patient who died from hæmorrhage; it has also been detected in the chyle of a dog and horse, to which it had previously been administered, by Tiedemann and Gmelin.

THERAPEUTICAL EFFECTS. The diseases for which Turpentine has been prescribed, and which have been materially relieved by it, are extremely numerous; there is scarcely one, whether acute or chronic, sthenic or asthenic, which has not been successfully treated, if the testimony of some of the first practitioners of the age is to be credited, by the medicine under consideration. It would be a useless task to cite all the cases and all the maladies, in which the admirers of this drug have found it advantageous. Suffice it to say, that in every instance, where prejudice has not interfered, and where ignorance has not prescribed, this drug has obtained favour and proved itself a faithful friend.

In passing in review the numerous disorders for which it has been ordered, as I wish this paper to have a practical bearing, I shall dwell as briefly as possible upon all those which have not come under my own immediate observation. Those who desire a more extensive acquaintance with the nature, properties, and uses of this drug than is to be met with in these sketches, will do well to consult the pages of our monthly and weekly periodicals, which, for the last thirty years, have occupied a prominent place in the medical literature of Europe and America. The writings of Dr. Copland, Paris, Pereira, Eberle, Thompson, Brande, etc., the *Dictionnaire de la Matière Médicale*, and the records of ancient medicine, contain an amount of valuable information regarding the properties of Turpentine. In common with other medicines, its therapeutic effects are liable to be modified by numerous circumstances: viz., the seasons of the year, the idiosyncrasies, age, or sex, of the individual, the special or general cause of the malady, or its occurrence before, or subsequent to, any general or universal epidemic.¹ From a neglect of these pre-

¹ It is a remarkable fact, that after any severe visitation, such as epidemic cholera, the human frame undergoes an extraordinary change. Many will, I have no doubt, recollect how general was the custom to abstract large quantities of blood in fevers and inflammatory disorders previous to 1831. Venesection was the prac-

cautions, many really valuable remedies have, though somewhat undeservedly, fallen into disrepute.

As a rapid and safe *counter-irritant*, there is no drug more efficacious than warm oil of Turpentine or camphine. I have never known an instance of its acting injuriously when thus applied; it never produces strangury or any uneasiness of the urinary organs, like preparations of cantharides; and here I fully coincide with the opinion expressed by the late Dr. Ryan, that when counter-irritation is deemed imperatively necessary in severe acute diseases, as cerebritis, hydrocephalus, pneumonia, enteritis, peritonitis, or hepatitis, it is an extremely inert and unjustifiable practice, to wait for twenty-four hours for the irritating effects of a blister, when the same may be produced in as many minutes by epithems of warm oil of Turpentine.

Veterinary surgeons have condemned the external use of Turpentine as an epispastic; it has been asserted that, when applied to the horse, it prevents the hair from growing. I do not think this correct. Some years ago, I had a grey mare, which was seriously injured about the head and fore legs by an accident. Contrary to the recommendation of my veterinary surgeon, who insisted upon the application of tincture of myrrh, and greasy unguents containing gunpowder, I determined for once to try the experiment, if an injury to a horse might not be remedied by the same means as one in a human subject. I had the wounds carefully fomented and poulticed, and afterwards applied an ointment, consisting of resin ointment, and oil of Turpentine. The animal recovered without any material disfigurement. Last year I had a black horse consigned to me by a friend in Yorkshire, which met with a severe accident in its transit on the railway. The horse was treated in the same way as the one above, and in a few months was perfectly restored, without any other blemish.

The liniment, by means of which the celebrated quack St. John Long was supposed to have performed miraculous cures, was a mixture of the oil of Turpentine, pyroligneous acid, and yolk of egg.¹

As a *vermifuge*, turpentine has been given in the form of Chabert's oil. This is made by mixing one part of the empyreumatic oil of hartshorn, with three of oil of Turpentine, allowing them to stand for

tice of the day. On the advent of the epidemic influenza of 1833, general bleeding, even in maladies of a high phlogistic character, could not be adopted with safety; numerous lives were doubtless sacrificed, ere this change in the human constitution,—its inaptitude to bear excessive depletory measures, was fully appreciated and understood. We are now approaching an epoch (if we have not already entered it), in which the vital phenomena of the animal organism will manifest themselves differently under the influence of remedial agents. If my observation does not deceive me, I am inclined to believe that this great climacteric change, on the completion of the cycle of the late formidable and universal epidemic, will mainly develop itself, by inducing a lax condition of the intestinal tube. I have noticed, that patients who have been accustomed to take large quantities of aperient medicine, now rarely require it; and when it is needed, a smaller portion is found sufficient. This is not confined to the aged, for even in children I have witnessed a similar alteration in their former habits.

¹ This liniment is an excellent counter-irritant. We used it as an external stimulant in some cases of cholera during the past epidemic, as recommended by Dr. James Bird; and we frequently employ it as a counter-irritant in phthisis, and other chest diseases. EDITOR.

three days, and afterwards distilling off three-fourths of the mixture by the aid of a sand bath. It very soon becomes blackened, by exposure to the air, and therefore ought to be kept well corked, and excluded from the light. It is extremely nauseous; and, on that account, is not likely to come into general use.

As a *purgative*, Turpentine ought never to be administered alone, in large doses, during the winter, or in cold damp weather: because, under these circumstances, it tends, in common with other hydrocarbons, to supply fuel to the body for the evolution of animal heat, rather than exert any therapeutic property. Indeed, I very much question the propriety of giving it alone, as a purgative, under any circumstances whatever. There are some writers who do not hesitate to recommend it in doses which I consider unjustifiable. In winter, cerebral congestion may supervene; in summer, intractable diarrhoea, from over-excitement of the mucous membrane of the bowels. The case of Dr. Copland furnishes an instructive example on this head: ten drachms of the oil of Turpentine were swallowed, and failed to induce action of the bowels or kidneys; the consequence was, high cerebral excitement, followed by a train of unpleasant symptoms, which it would be dangerous, in some constitutions, to excite.

Turpentine is, however, often a valuable addition to other purgatives, as it possesses the faculty of increasing their activity in a remarkable degree. I have known a lady, who, for forty years, was unable to procure an evacuation without the most drastic purgatives. She succeeded in obtaining daily action, by the simple combination of a teaspoonful of castor oil with ten drops of oil of Turpentine. I have had another case under my care, where the same combination enabled me to relieve the augmented suffering occasioned by obstruction of the bowels from chronic meningo-myelitis of several years duration.

Whatever may be the object for which Turpentine is exhibited as a purgative, whether for the expulsion of parasites infesting the human body, or as a revulsive in cerebral affections, the dose should never exceed half an ounce at one time; and to ensure its purgative action, it ought to be united with some other aperient, as castor oil, compound infusion of senna, sulphate of magnesia, or the decoction of the bark of the root of the pomegranate. If prescribed in the above dose, in conjunction with any other active purgative, we run little risk of inducing strangury, or any other unpleasant symptom. It may be repeated at intervals of four hours, with perfect safety. Though some authors have stated that the dose of the oil of Turpentine may be from half an ounce to two, or even four ounces, he must be a very bold practitioner, who would take this suggestion for his guide. If the first-named quantity will not suffice for the destruction and consequent expulsion of a *tænia*, a larger amount given at one time, will equally fail; for it is not by the aperient properties alone of the medicine, (as I shall hereafter shew) that the death of the worm is effected.¹ As a *diuretic*, the dose may

¹ There may be special cases, but they will be extremely few, in which an extraordinary dose of any particular medicine may be peremptorily called for by the condition of the patient. For instance, I once gave to a man labouring under *delirium tremens*, seven grains of the acetate of morphia, in divided doses, within two hours, ere I could allay the inordinate and convulsive movements, and restrain

be from five to thirty drops, taken in any aromatic water, or mineral saline. I have rarely found patients object to its use, when exhibited with the salines of either Cheltenham or Harrowgate; and the numerous cases in which I have prescribed it, in conjunction with the waters from these mineral springs, have convinced me, that this union is especially indicated where we are anxious to direct its influence to the renal organs.

As an *astringent*, in doses varying from 20 minims to a drachm, according to the urgency of the symptoms, and repeated every three or four hours, Turpentine is one of the most efficacious remedies which we possess. The best vehicle for its administration, in the first place, is water, flavoured with syrup of orange, or any other agreeable aromatic. It may afterwards be advantageously combined with any other therapeutic agents, which the special nature of the case may require: thus, in epistaxis depending upon rupture of one or more small vessels, and where much arterial blood has been lost, muriated tincture of iron will form a valuable adjunct. In hæmatemesis and other sanguineous discharges from the bowels, it may be united with compound infusion of roses, sulphate of magnesia, iced-water, and solutions of tannic or gallic acid. In some forms of hæmoptysis, it may usefully be added to infusions of matico; in hæmaturia, to the decoctions of uva ursi, chimaphila, pyrola, etc.; or to tincture of sesquichloride of iron, etc. In purpura hæmorrhagica, the decoctions or infusions of the barks form with it an excellent adjuvant. In hæmoptysis, it has speedily and effectually arrested the hæmorrhage; and is a much safer remedy than lead.

In my experience, there is no single medicine in the *materia medica*, that can be compared with it as a *styptic*, either as to certainty of action, or to the safety of its effects. It is compatible alike with acids and alkalies.

The *external use* of Turpentine has been very general for a great number of years, alone or combined with other rubefacients, such as mustard, strong liquor ammoniæ, pyroligneous acid, cajeput oil, wine of hellebore, colchicum or opium, tartar emetic, croton oil, etc. It has very frequently been found of permanent utility, when applied as a warm epithem to the skin in pulmonary affections. Its action is twofold; first, it induces rapid though often transient counter-irritation; secondly, its vapour is inhaled into the lungs, and by its constringent operation on the extreme capillaries of the pulmonary texture, is not infrequently productive of great relief in some affections of these organs. For the purpose of inhalation, I am in the habit of dispersing its vapour through the room by evaporating water containing a portion of it, by the aid of a spirit lamp. When thus diffused through the atmosphere, it may be breathed for two or three hours in the course of the day, by the most delicate-chested person, and often with the most marked and striking amelioration of their pectoral symptoms.

the shrieks of the wretched sufferer. Again, at another time, I exhibited to a female, in the presence of Dr. Logan, twelve ounces of sulphuric ether, when the principles of etherization were first introduced, and kept this woman in a state of insensibility for upwards of six hours. Although both these cases did well, they are exceptional ones, and ought never to be imitated, except in emergencies of the most urgent description.

Long after the patient has left the room, he is conscious of the taste and smell of the turpentine. I have often detected its presence some hours after he had been submitted to its penetrating influence. I have also employed camphine in the form of a bath, mixed with common soda; or two pounds of the latter with from quarter of a pint to half a pint of camphine, and half an ounce of oil of rosemary, will form an excellent bath. In delicate skinned patients, females and children, $\frac{3}{4}$ ii of camphine will be sufficient. I may remark, *in limine*, that the alkaline camphine bath possesses virtues peculiarly its own. In the coldest day in winter, as I have verified in more than one instance, it may be employed with the most perfect safety. Whilst the individual is in the bath, he experiences, to my knowledge, no disagreeable annoyance from the disengaged vapour; on the contrary, if we except the taste of the Turpentine, which for some time remains in the mouth, a sense of calmness and tranquillity very often follows a previously disturbed, irregular, or excited condition of the respiratory or sanguiferous systems. After five minutes recumbency in the bath, the pulse is found to become fuller, softer, and slower; I have seen it fall from 100 to 80. The respiration also becomes freer, deeper, and less laboured. On coming out of the bath, the whole skin has a peculiar velvety, soft, and agreeable feeling; the breath is strongly tainted with the terebinthinaceous odour. If it have not been too hot, a pleasurable tingling warmth is experienced throughout the whole cutaneous surface; and this, with the preceding symptoms, may continue twenty-four hours. One great advantage of this bath will be found in the circumstance, that it may be employed at a heat from 10 to 15 degrees below the temperature of the ordinary warm one, without inducing that sensation of chill to which some delicate constitutions are so peculiarly obnoxious; ten or fifteen minutes is the length of time a patient ought to remain in a bath of this description. In the first instance, it is well for patients to commence with a smaller quantity of the Turpentine and soda, say a pound of the latter with two or three ounces of the former, and gradually increase its strength on each repetition of the bath, to the first mentioned proportions. This bath may be taken every second or third day, according to the urgency of the symptoms and the nature of the affection for which it is prescribed.

I come now to a more particular enumeration of the maladies for which Turpentine and its preparations have been chiefly recommended. They are—sanguineous exhalations from the mucous surfaces, epistaxis, hæmoptysis, melæna, purpura hæmorrhagica;¹ consumption, chronic bronchitis, mucous or purulent discharges from the urethra;² grubs infesting the urethra, tænia, ascarides;³ typhoid, yellow and puerperal fevers, plague;⁴ abdominal obstructions, strangulated hernia, tympanitis, colica

¹ Adair, Brooke, Cheyne, Clutterbuck, Copland, Elliotson, Hunter, Mageé, Nichol (W.), Thompson, Vincent, Younge.

² Aretæus, Celsus, Dioscorides, Van Swieten.

³ Birkbeck, Cross, Fenwick, Fothergill, Gómés, Hancock, Hartle, Kennedy, Knox, Laird, Lettsom, Maldon, Mello, Ozanam, Pereira, Saner, Winstone.

⁴ Atkinson, Blundell, Brennan, Chapman, Copland, Cullen, Douglas, Farre, Faulkner (Sir A. Brooke), Fernandez, Gooch, Hamilton, Holst, Johnson, Kinneir, Moran, Payne, Physick, Pritchard, Wood.

pictonum, biliary concretions ;¹ traumatic tetanus, trismus ;² apoplexy, hydrocephalus, acute and chronic, epilepsy ;³ neuralgia, sciatica, rheumatism ;⁴ diabetes, dropsy ;⁵ inflammations of the eye ;⁶ cholera, renal hydatids, suppression of urine ;⁷ burns, wounds, poisoning by prussic acid or opium, salivation.⁸

ILLUSTRATIVE CASES. My first observations will illustrate its efficacy in the Hæmorrhagic Diathesis. I do not coincide with the notion, that hæmorrhage, whether vicarious, or occasioned by a congestive condition of an overburthened viscus, is a salutary effort of nature, and that, therefore, caution is necessary in interfering with it. It has been my invariable aim to arrest a hæmorrhagic effusion as quickly as possible. We can in some measure calculate the worst consequences likely to arise from a general or local abstraction of blood ; but we can never foretell what irreparable lesions nature may occasion by prolonged sanguineous exudation through an unnatural channel.

Hæmatemesis. This is a very common disorder, and often, when improperly managed, lays the foundation for a train of symptoms which not infrequently terminate in dropsical effusion. It has happened to me to have several such cases, principally among females, in which the usual treatment, by acetate of lead, mineral and gallic acids, etc., had been adopted. Since, however, I have given the Terebinthines in this class of diseases, I have not had a single dropsical case supervening on the original malady.

CASE I. Captain —, 82nd foot, aged 64, was engaged in active service in India, and in the Peninsula, prior to the year 1812. He was of stout athletic constitution, six feet two inches high, and rarely if ever was known to complain, previous to an attack of fever, which he experienced at the close of the Peninsular war, and which led to his retirement from active military service. From that period to 1843, he was a martyr to anomalous and painful sensations in the præcordial region. The more prominent symptoms were—a short hacking cough, without expectoration ; an occasional momentary pain darting from under the left nipple to the right shoulder, easily brought on by mental excitement ; his temper, which had formerly been under control, now became irritable, fretful, and peevish. The functions of the bowels were performed with regularity ; the appetite in general was good ; his sleep short and disturbed. For a very long period, these symptoms continued without any material alteration, though he had tried a variety of remedies for upwards of twenty years, and had had issues of one kind or another in different parts of the body. About the year 1831,

¹ Boerhaave, Durand, Gibbon, Green, Guyton de Morveau, Hall (Marshall), Hamilton (C. B.), Kinglake, MacWilliams, Odier, Paris, Ramsbotham, Sewell, Sprengel.

² Gibbon, Hutchinson, Mott, Phillips.

³ Latham, Lithgow, Money, Moran, Percival, Pritchard, Young.

⁴ Bonnet, Cheyne, Ducros, Dufour, England, Hild, Home, La Roque, Lenton, Martinet, Maton, Pitcairn, Recamier, Thilenius.

⁵ Darwin, Werlhoff.

⁶ Burke, Carmichael, Foote, Guthrie, Hynam, Langier, Middlemore, Wright.

⁷ Bayle, Copland, Neale, Pereira.

⁸ Emmert, Geddings, Hanold, Heister, Jenkins, Kentish, King, Orfila, Paré (Ambroise), Percy, Pott.

he parted with a small quantity of blood, which greatly alarmed him, and for some weeks this continued with scarcely a day's intermission. On recovering from this attack, he found great difficulty in remaining quiet in a sitting posture. When in the house, he was constantly rocking himself in his chair. A see-saw motion seemed to be essential to respiration: if perfectly still, he complained of a feeling of suffocation. In 1837, he experienced a second attack of Hæmatemesis, of a more serious character. The hæmorrhage continued for several days, unrestrained by the remedies used. He was very much altered; convalescence was extremely slow, and he never regained his former status. It was a few months after this attack that I first saw him. His appearance was exsanguineous, lips livid, pulse 100, irregular and intermitting, respiration short and laboured. He was in constant motion, rocking himself to and fro in his chair, which he always had placed in a diagonal line between the fire-place and the open door. Even at meals, he continued the same to-and-fro motion, eating whilst rocking himself. His tongue was large, thick, indented, and compressed, palish, and mostly covered with a yellowish fur; the abdomen was exceedingly painful to the touch, more especially in the right hypogastric region. The bowels were easily acted upon by aperients. The evacuations were bilious, often dark and foetid. The urine was high-coloured and scanty, frequently throwing down a lateritious sediment, sometimes attended with a pinkish deposit; sp. gr. 1.030. He had also swelling of the ankles; constant teasing cough, with mucous expectoration; occasional severe pain in the forehead; pain in the region of the heart. The physical signs were—chest sonorous; occasional mucous rale; extended dullness over the precordial region; *bruit de rape* most distinct on the right side, in a line upwards towards the sternum. Intensely severe paroxysms of dyspnœa now occurred at frequent intervals; these were relieved by local depletion and antispasmodics. There was œdema of the lower extremities; the urine was passed in small quantities. Towards the close of 1840, hæmorrhage from the stomach and bowels again recurred, with great increase of pain in the abdomen. In his debilitated condition, general bleeding was inadmissible; and even local depletion was not altogether unattended with risk. I prescribed ten leeches to relieve the abdominal inflammation, and ordered warm epithems of Turpentine to be subsequently applied. Turpentine enemata were also ordered to be administered twice daily, and the following mixture to be taken, in doses of two table-spoonfuls, every four hours: \mathfrak{R} Infusi rosæ comp. \mathfrak{z} viiss; magnesiæ sulphatis \mathfrak{z} viii; mannæ optimæ \mathfrak{z} iv; olei Terebinthinæ purificati \mathfrak{z} iss. M. On the following morning, I found him much better; the bowels had been freely relieved, the pain had considerably abated, and there had been no return of the hæmorrhage. He expressed himself as feeling decidedly better, and had never experienced so much relief in so short a time from any medicine as from the Turpentine. He rallied from this attack rapidly; the swelling of the ankles decreased; the urine became light-coloured, of lower specific gravity, and more abundant in quantity; his complexion improved, and his spirits became more cheerful. He continued the Turpentine, in conjunction with the saline waters of Harrogate, for a considerable time, with marked amelioration of his more painful symptoms.

About three years after this, domestic troubles increased the disturbance of the heart. Peritonitis supervened, from which he sank in a few days.

The autopsy revealed a very large amount of disease. The heart was of an unusually large size; the walls of the right ventricle were much dilated and thinned; the mitral and tricuspid valves were extensively ossified. A small quantity of serosity was found in the pericardium. The lungs were healthy in texture, but slightly congested; the peritoneal covering of the bowels was extensively inflamed. The transverse arch of the colon was firmly attached to the lower surface of the stomach, and bands of adhesion (evidently of long standing) passed from it to several portions of the small intestines. In the stomach, were two small ulcerations near its pyloric orifice, and it exhibited small puckered places in several parts, evidently the result of some previous ulceration; there were also distinct patches of inflammation. The liver was a completely soft pultaceous mass, easily breaking down under the finger; it was of a bright yellow colour, and contained small pieces of a white friable calcareous matter. The kidneys appeared larger than natural, and much congested.

CASE II. Mr. M., aged 36, of florid complexion, stout conformation, five feet ten inches in height, was seized on the 30th April, 1843, whilst superintending his men, who were removing some machinery in a mill, with a sensation of sickness and oppression in the præcordial region. Feeling himself very ill, he immediately desired to be taken home; but before this could be accomplished, he vomited a large quantity of blood. On my arrival at his house, whither he had been removed, I found him still complaining of considerable nausea. I immediately gave him ten grains of the acetate of lead, to be repeated every three hours, if the bleeding continued; infusion of roses with sulphate of magnesia and tincture of digitalis was also prescribed; and bladders of ice were ordered to be applied to the pit of the stomach. In the evening, I found him considerably worse; the tongue was very much coated, the pulse quick and thrilling, and he had severe pain, much increased on pressure, over the colon. To be cupped to twelve ounces; to continue the medicine, with the addition of a quarter of a grain of acetate of morphia to each dose.

May 1. Passed more blood during the night, and was extremely restless. Tongue very much coated with a brown yellowish fur; great thirst; pulse still quick and thrilling; bowels freely acted upon; evacuations dark, pitchy, and foetid; urine high coloured. Whilst I was in the room with him, he became very sick, and again ejected a considerable quantity of blood. Before leaving the room, I gave one drachm of the spirits of Turpentine in a little water. I ordered him to discontinue the other medicines, and to take, instead, three tablespoonfuls of the following mixture every three hours. \mathfrak{R} Infusi rosæ comp. \mathfrak{z} viiss; tincturæ digitalis \mathfrak{z} iiss; magnesiæ sulphatis \mathfrak{z} vijj; olei Terebinthinæ purificati \mathfrak{z} iiss. M. In the evening, there had been no return of the bleeding; there was still severe pain in the head: the bowels had acted five times; the pulse was softer; the tongue much the same; thirst very great. To drink iced water, and to have ice applied to the head. To continue the mixture, and to have hot Turpentine applied to the bowels.

May 2. Better in every respect; no return of the hæmorrhage. From this day he continued to improve.

May 24. As there was some tenderness in the epigastrium, a seton was ordered. He was subsequently sent to Harrogate; and, under a course of the Cheltenham salines of that place, with small doses of Turpentine, he rapidly regained his health, and has continued well ever since.

CASE III. F. H., aged 40, residing in St. Mary's Row, was admitted into the Leeds Public Dispensary, October 19, 1842. The following were her symptoms: pain in the forehead; swelling of the abdomen, without any particular pain; nausea, attended with sanguineous vomiting, small in quantity, occurring every two or three days, and which had already lasted a fortnight before she came under my care. Pulse soft; tongue clean; catamenia irregular, generally very scanty, but, at the time she applied to the dispensary, very profuse; bowels costive. I was at first inclined to suspect uterine disease; but, on a careful examination with the speculum, I could detect no evidence of it. She was ordered to take, every four hours, the following pill: \mathfrak{R} Plumbi acetatis gr. iij; morphiæ acetatis gr. $\frac{1}{4}$. M. Two tablespoonfuls of the following mixture were also ordered, every four hours. \mathfrak{R} Acidi sulphurici diluti 3ij; magnesiæ sulphatis 3j; misturæ camphoræ 3vijss. M.

Oct. 20. Much the same. Hæmorrhage from the uterus very profuse; the vomiting of blood appeared to have ceased: the bowels were freely opened; she complained of uneasy sensation round the navel, increased on pressure. To continue the medicine; and to have eight leeches applied to the abdomen, and a blister to the same region at bed-time.

Oct. 21. Not nearly so well; tongue very much furred; gums appeared sore; breath offensive; pulse sharp and vibratory; pain in the head and bowels much increased; had vomited a considerable quantity of blood; slight strangury. To discontinue the lead. \mathfrak{R} Olei Terebinthinæ 3iss; pulveris tragacanthæ comp. 3ij; extracti conii 3ss; tincturæ digitalis 3j; misturæ camphoræ 3viiss. M. Three tablespoonfuls every four hours. Warm turpentine to be applied to the loins. \mathfrak{R} Pulveris ipecacuanhæ compos. gr. x; hydrargyri chloridi gr. ij; fiant pilulæ iij. To be taken at bed time.

Oct. 22. Passed a better night; pain in the head much relieved; the catamenia have ceased; she threw up a small quantity of blood after breakfast; bowels inactive; micturition still scanty, but not painful; had perspired freely during the night. \mathfrak{R} Olei ricini 3vj; olei Terebinthinæ 3ss. M. To be taken directly. To continue the last mixture.

Oct. 23. Still improving; no return of the bleeding, complains of great weakness; is very much blanched from the loss of blood. \mathfrak{R} Potassii iodidi gr. i; pulveris opii gr. ss; extracti lactucæ gr. ij; fiat pilula. To be taken at bed time.

Oct. 24. Much better. To continue the pill. \mathfrak{R} Olei Terebinthinæ 3j; tincturæ gentianæ comp. 3ss; sodæ sesquicarbon. 3iij; pulveris rhei 3ss; decocti aloes comp. ad 3xx. M. Two tablespoonfuls twice a day. From this date she continued to mend; and was discharged cured, Dec. 7, 1842.

CASE IV. M. H., aged 60, residing at Holbeck, was received into the Leeds Public Dispensary, December 14, 1842. She had been ailing for a long time, and latterly had become jaundiced; she had been much

troubled with pyrosis for some weeks, and informed me, that she had noticed the abdomen to be considerably swelled, before she went to bed. On the day of her admission, she was seized with sickness, and vomited about a pint of blood; this, she stated, gave her great relief. There was considerable tenderness over the stomach; the liver was painful to the touch, hard, and apparently very much enlarged. The bowels were lax, and had been so for some time. The urine was dark; she had a bitterish taste in her mouth; the tongue was coated with a yellowish white fur; the conjunctivæ were yellow; the pulse small, irritable, and quick; the skin dry. She was ordered to have eight leeches applied to the right side, and to take the following pills immediately. \mathfrak{R} *Pilulæ hydrargyri* gr. iij; *calomelanos* gr. i; *pulveris ipecac. compositi* gr. viij. *M. Fiant pilulæ* ij. \mathfrak{R} *Spiritûs Terebinthinæ* 3i; *infusi juniperi comp.* 3viiss; *sodæ sesquicarbonatis* 3i. *M.* Two tablespoonfuls every four hours.

Oct. 15. She had headache, occasioned by the opium; had parted with more blood during the night; bowels not relieved since yesterday. \mathfrak{R} *Olei ricini* 3iv; *tincturæ rhei compositæ* 3ij; *olei Terebinthinæ* m. xx. *M.* To be taken directly. \mathfrak{R} *Unguenti hydrargyri fortioris* 3ij; *camphoræ* 3ij. A small portion to be rubbed over the region of the liver every night.

Oct. 16. Very much jaundiced; feels better; bleeding checked. To continue the mixture. \mathfrak{R} *Pilulæ hydrargyri* gr. v; *extracti colocynthis compositi* gr. iv. *Fiant pilulæ* ij. To be taken every night.

Oct. 20. Mouth tender; has had no return of the hæmorrhage; symptoms improving; still troubled with waterbrash. \mathfrak{R} *Extracti taraxaci* 3j; *pulveris rhei* 3j; *olei Terebinthinæ* 3j; *potassæ tartratis* 3i; *aquæ ad* 3viij. *M.* Two tablespoonfuls every six hours. *R.* *Bismuthi trisnitratis* gr. iij.; *extracti taraxaci* gr. ij. *M.* To be taken twice daily. This patient was discharged cured, January 4, 1843.

Epistaxis. Since I have prescribed Turpentine in this affection, I have rarely seen the bleeding continue more than two or three days. In these cases, I mostly combine the Turpentine with muriated tincture of iron.

CASE v. A lady, considerably advanced in years, and who had from infancy been subject to hæmorrhage from the nostrils, consulted me about two years ago, when labouring under one of her periodical attacks. She informed me, that she had rarely of late had the bleeding arrested without plugging, and even then the hæmorrhage was liable to recur on the most trifling excitement, or extra exertion. At her request, I plugged the nostril; and gave her the infusion of matico, with pills of acetate of lead. The complaint proved troublesome, and it was three weeks before the hæmorrhage had completely ceased. This, she told me, was about the length of time that these attacks generally lasted; they always left her very much enfeebled. About fourteen months after this, I was suddenly summoned in the middle of the night to the same lady, who had a recurrence of her complaint. After plugging the nostril, I gave her a drachm of the oil of Turpentine, with ten minims of the muriated tincture of iron, in a little water, and ordered half the quantity of the same medicine every two hours, if the bleeding continued. At my morning visit, I found that the hæmorrhage had been successfully arrested. In

three days the plug was removed; and, up to the present time, she has had no return of the bleeding.

My confidence in this remedy, for arresting atonic epistaxis, is unbounded. I have frequently trusted to it alone, without resorting either to plugging, or to the employment of any other astringent.

CASE VI. A poor man (a bookbinder, residing in Union Street,) called at my house, a short time ago, bleeding profusely from the nose; a drachm of oil of Turpentine was immediately given to him in water; as he had a little distance to go, and it being a very cold night, I plugged the nostril. In removing the plug on retiring to bed, he brought on a return of the bleeding. Another drachm of Turpentine was administered. In three days he was perfectly well.

Hæmaturia. The propriety of prescribing oil of Turpentine in *Hæmaturia* has been doubted by many. It has been reported to have produced the very disease which it was intended to alleviate. I have never seen any ill effects from its use in this disorder: but, on the contrary, I regard the judicious administration of Turpentine calculated to arrest its course. There may be cases of organic change in the structure of some parts of the urinary organs, which might render its employment objectionable; but, hitherto, I have not met with any such.

CASE VII. W. W., aged 19, of spare habit, slight stature, pale and sallow complexion; works in a flax mill. His symptoms had lasted three days prior to his appearance at the Leeds Dispensary, June 4, 1842. They were dull, deep-seated, aching pain in the lumbar region, tenesmus with frequent bloody micturition, anorexia and fever. He had been subject to these attacks for the last two years, and latterly they had recurred at shorter intervals. \mathcal{R} Pulveris uvæ ursi gr. x. To be taken three times a day. \mathcal{R} Pulveris jalapæ comp. gr. xv; calomelanos gr. ij. To be taken at bed time.

June 6. Hæmorrhage still continues. \mathcal{R} Pulveris uvæ ursi \mathfrak{z} j; olei menthæ piperitæ m. ij; olei Terebinthinæ \mathfrak{z} ij; pulveris tragacanthæ comp. \mathfrak{z} j; aquæ ad \mathfrak{z} viii. M. Two tablespoonfuls every four hours. \mathcal{R} Antimonii potassio-tartratis \mathfrak{z} j; olei tigllii \mathfrak{z} j; liquoris ammoniæ fortioris \mathfrak{z} iv; spiritûs Terebinthinæ \mathfrak{z} i M. Liniment to be rubbed into the loins at bed time every night.

June 8. Much improved; liniment has produced a copious crop of pustules; urine clear; no blood.

June 15. Discharged cured. Two years after, this patient informed me, that he had not had any relapse.

CASE VIII. A. W., aged 68, a dispensary patient, admitted August 10, 1842. She had been ill about a week, and had had considerable pain in the left side and shoulder, also diarrhœa, and blood in the urine. \mathcal{R} Misturæ cretæ comp. \mathfrak{z} vij; confectionis aromaticæ \mathfrak{z} j; pulveris uvæ ursi \mathfrak{z} iss.; tinct. opii \mathfrak{z} ss. M. Two table-spoonfuls every four hours.

Aug. 14. Bowels more comfortable; still parts with blood in the urine. To repeat mixture, with a drachm of oil of Turpentine.

Sept. 6. Had a slight relapse attended with nausea. \mathcal{R} Acidi nitrici dil. \mathfrak{z} ij; olei Terebinthinæ \mathfrak{z} i; acidi hydrocyanici dil. (P.L. 1836) \mathfrak{z} ss; aquæ ad \mathfrak{z} viii. M. Two tablespoonfuls twice or thrice daily. This patient was discharged cured, on the 19th. She died about a year after, under the care of one of my colleagues, of another affection. An autopsy was not allowed.

CASE IX. M. S., aged 26, married, a collier, was admitted January 12, 1843, as an out-patient to the Leeds Dispensary. He had been ill for several days, with fever, attended with great thirst, headache, foul tongue, and severe lancinating pain in the lumbar region, extending to the left knee. Urine in small quantity, bloody. Bowels constipated. He was sounded for stone, but nothing was detected. He attributed his ailment to cold. \mathfrak{R} Pilulæ hydrarg. gr. iij; calomelanos gr. i; pilulæ aloes cum myrrhâ gr. vj. M. ut fiant pil. ij. To be taken at bed time. Ung. antimonii potassio-tart. \mathfrak{z} i, to be rubbed into the loins every night. \mathfrak{R} Magnesiae sulphatis \mathfrak{z} i; olei Terebinthinæ \mathfrak{z} i; pulveris uvæ ursi \mathfrak{z} i; misturæ camphoræ \mathfrak{z} vij. Two tablespoonfuls every four hours. This patient was discharged cured, January 20.

Capillary Hæmorrhage. I have not witnessed many instances of this disorder, but the following case may, I think, be fairly considered as an example.

CASE X. J. C., residing at Burmandtofts, Leeds, consulted me on the 19th of October, 1842. He was of a spare make, aged thirty-two, and followed the occupation of a town missionary. He was frequently attacked with ephemeral fever, arising, no doubt, from the daily exposure to miasmatic influence, whilst administering religious consolation to the indigent sick. It was immediately subsequent to one of these attacks, that he was seized with jaundice, attended with an exacerbation of all the febrile symptoms. The alvine evacuations were clay-coloured and scanty, the urine in small quantity, and of a deep red tinge, and the skin moist. As this patient was peculiarly sensitive to the influence of mercury, I was cautious in prescribing it. He was ordered to take the following pills at bed time:— \mathfrak{R} Pilulæ hydrargyri gr. iij; pulveris ipecac. gr. ss. M. The following mixture was also prescribed. \mathfrak{R} Infusi sennæ \mathfrak{z} vij; antimonii potassio-tartratis gr. i; magnesiae sulphatis \mathfrak{z} i. M. Two table-spoonfuls every six hours.

Oct. 21. On this day I was urgently sent for to Mr. C., who was reported to have burst a blood-vessel. Not being able to leave a female patient, whom I was then visiting, I requested the messenger to call in some other medical man. At eleven o'clock the same evening, the messenger informed me that they had called in the nearest neighbouring practitioner, but the hæmorrhage still continued. When I arrived, I found that the doses of blue pill, which Mr. C. had taken the two previous nights, had brought on ptyalism. The saliva was mingled with blood, which oozed from the upper surface of the tongue. On examining the mouth, I found the tongue enormously swollen and distended. The patient seemed much exhausted and frightened, for the bloody saliva, every now and then, gushed from his mouth in large quantities. He had taken acetate of lead and nitric acid. I immediately gave him a drachm of the oil of Turpentine in water, and applied creasote all over the upper surface of the tongue. In an hour, the hæmorrhagic secretion appeared less profuse; another dose of the Turpentine was administered. At two o'clock in the morning I left him, the bleeding having ceased. I ordered the Turpentine to be given in half-drachm doses every hour.

Oct. 22. The patient was considerably better at my morning visit; there had been no return of the hæmorrhage, and the salivation was

materially lessened. The jaundice, however, still continued. \mathcal{R} Olei Terebinthinæ purif. $\mathfrak{z}\text{i}$; extracti taraxaci $\mathfrak{z}\text{ss}$; sodæ sulphatis $\mathfrak{z}\text{i}$; aquæ ad $\mathfrak{z}\text{vj}$. M. Two tablespoonfuls twice daily. In a short time Mr. C. was convalescent. I advised him, however, to continue the Turpentine, in combination with muriated tincture of iron and infusion of quassia. He subsequently enjoyed much better health than he had for years previously.

During my house-surgeoncy at the Charing Cross Hospital, in 1836 and 1837, a little boy was admitted, under the care of the late Mr. Howship, suffering from necrosis of the tibia. This child belonged to a family in which the hæmorrhagic diathesis was strongly developed. One, if not two (I quote from memory), of the child's relatives had died from sanguineous exudation after slight injuries. It was decided, on a careful consideration of the case, to remove the dead portion of bone, to effect which, it was necessary to make an incision of about an inch long, through the integuments covering the tibia. The operation, which was skilfully performed by Mr. Howship, did not occupy many minutes. The boy was removed to his bed in high spirits, but, in a few hours, a remarkable change occurred; the bleeding from the cutaneous vessels continued, notwithstanding the application of powerful styptics, and the child, who had now become pale and blanched, from loss of blood, sank in a few hours after the operation. I have often deeply regretted that Turpentine was not administered in this instance. I have alluded to it, in order, that should a similar one occur, this remedy may not be lost sight of.

Purpura Hæmorrhagica. Until the year 1846, I had very few opportunities of testing the therapeutic properties of Turpentine in this affection; but in the severe epidemic of this disorder, which took place among the poor, from the deficiency of the potatoe crop, and scarcity of vegetable food, in the winters of 1846 and 1847, I generally found Turpentine, in combination with bark and full purgative doses of Cheltenham saline waters, a very effectual remedy.

CASE XI. R. H., aged forty-seven, a cook, unmarried, who for twelve months had been out of a situation, applied to me for advice, Sept. 22, 1847. The following were her symptoms:—Bilious retching; pain in the left side; pain darting from the left kidney to the brim of the pelvis; great dyspnoea, pulse 96, small and weak; respiration 26, rapid and short; bowels constipated; catamenia ceased three years; complexion pale and sallow; tongue furred and indented; breath foetid; gums spongy: urine high coloured, loaded with lithates; purplish petichiae, most extensive on the left side of the body; ankles swollen; often much annoyed with flatulency. This woman had eaten sparingly of vegetables the previous winter; her diet had chiefly consisted of boiled rice, a diminished quantity of bacon, salted fish, fresh meat, bread, and tea. \mathcal{R} Pilulæ hydrar. gr. iij; extracti colocynthis compositi gr. vj. Fiant pilulæ ij. To be taken at bed time. \mathcal{R} Acidi nitrici diluti $\mathfrak{z}\text{i}$; tincturæ cinchonæ $\mathfrak{z}\text{iv}$; infusi cinchonæ ad $\mathfrak{z}\text{viij}$. M. Two tablespoonfuls morning and evening. To eat freely of cooked vegetables, and have cider or perry for dinner.

Sept. 26. Much about the same—nights disturbed. To take two tablespoonfuls of the following mixture twice daily:— \mathcal{R} Acidi nitrici

diluti ℥i; tincturæ cinchonæ ℥iv; olei Terebinthinæ, tincturæ hyoscyami aa. ℥ii; infusi cinchonæ ad ℥viiij. M. The pills to be omitted.

Oct. 2. Eruption declining—bowels costive. To have a nitro-hydrochloric acid bath. R. Pilulæ hydrargyri ℥i; extracti colocynth. compos. ℥i; pilulæ galbani comp. ℥ij. M. et divide in pilulas xxx. Two to be taken twice a week. To take ℥xviij of the sulphuretted saline water every morning.

Oct. 10. Decidedly improved. To repeat the warm bath; to continue the saline aperient, adding to each morning dose a teaspoonful of the following drops. R. Tincturæ cinchonæ ℥i; olei Terebinthinæ ℥ss. M. This woman was perfectly well by the end of the month.

Hæmoptysis. This affection is generally associated with pulmonary phthisis, so that I shall treat of it in connexion with that disorder. As the use of Turpentine is not new in the treatment of pulmonary consumption, I shall condense my remarks as much as possible. I am not aware that the inhalation of the vapour has ever been recommended in pectoral disorders. I have not only found it useful in allaying the cough in acute and chronic bronchitis, but I have also seen a very great amendment follow its use in tubercular phthisis. The success which attended the inhalation of tar vapour, first recommended by Bishop Berkely, and so highly extolled by Sir A. Crichton, was, no doubt, owing to its volatile principles, analogous, in some respects, to those of Turpentine, from which it differs in containing a larger amount of carbon and empyreumatic oil, and less of the essential oil. "Out of fifty-four cases treated by Drs. Hufeland and Neumann, at the Hospital of La Charité, Berlin, four were cured; six were greatly improved; sixteen were unaffected by it; twelve became worse; and sixteen died." I have frequently resorted to the use of medicated vapours, containing Turpentine, conium, opium, and hydrocyanic acid, in every stage of this disorder. In the active form of pulmonary hæmorrhage, as well as in the distressing paroxysms of the morning cough, I have seen them produce a very tranquillizing effect. From the inquiries which I have made at the different Camphine and Turpentine manufactories, I have learnt, that the individuals engaged in the distillation of these ingredients are rarely on the sick list. Turpentine is considered by the men generally, to possess very healing properties. Applied to the lungs, in the form of vapour, or taken internally, I conceive that it exerts a benign influence in an ulcerated condition of these organs; and by inducing a healthy condition of the ulcerated surfaces, tends to produce cicatrization, after the morbid contents have been evacuated from the vomicæ, and the system improved by tonic or other remedies. It is known to exercise a salutary influence in chronic ulcers, indolent sores, and recent abrasions: *cæteris paribus*, it will have the same effect on internal ulcerations when cautiously inhaled or judiciously prescribed. In the following observations, in lieu of enumerating a variety of physical phenomena as elucidatory of incipient or confirmed phthisis, I shall confine myself to what is usually considered as the most unequivocal symptom of this disorder. The physical phenomena deduced by exploration of the pulmonary parietes, do not always furnish criteria on which we can depend with unbiassed confidence; but there is no sign

so strongly confirmatory of serious thoracic mischief, as pulmonary hæmorrhage; and whether it be occasioned by a plethoric condition of the heart or great vessels, or a congestive state of any of the cerebral or abdominal viscera, or by disease inherent in the texture of the lungs, the sequence too often proves its connexion with pulmonary consumption. I do not profess to have cured phthisis in any of the instances which I am about to narrate. All that I wish to imply is, that Turpentine has been more successful in restraining the hæmorrhagic tendency, and preserving the patients in a condition of apparent health, and for a much longer period, than any other remedy of which I have made trial. I have purposely abstained from the narration of any case of very recent date, knowing, that in a disorder of so deceptive a nature as phthisis, we ought to be especially guarded as to our prognosis, and not be too rash in forming our judgment of the future.

CASE XII. Mr. W., aged 36, cabinet-maker, consulted me on the 14th of May, 1839, for a pain in his chest, attended with considerable dyspnoea. The physical signs denoted incipient phthisis; and this diagnosis was confirmed a few weeks after, by the occurrence of hæmoptysis. Leeching, blistering, and counter-irritants were ordered, and a mixture containing Turpentine and infusion of roses. He improved under this treatment; and after a residence of some months in the Isle of Man, he returned home, and pursued his usual avocation. Four years afterwards, he was attacked with inflammation of the bowels, from exposure to cold and damp, which proved fatal. On examination of the body, the right lung contained a small cavity, which had a very healthy appearance; it contained a little yellowish matter; its lower edges were crossed and united by bands easily rent asunder. There was a considerable amount of miliary deposit in the apex of the same lung, but none in the other.

CASE XIII. A. S., aged 30, married, without family, a gardener, was admitted to the Leeds Dispensary, July 6, 1842, suffering from profuse hæmorrhage of the lungs. There was considerable dulness in the upper portion of both lungs; gurgling rhonchi. This case proved intractable for some time, but the hæmoptysis was finally subdued, and the man resumed his usual employment, continuing, by my advice, to take daily a few drops of Turpentine with infusion of quassia. When last I heard of him, he seemed to be in tolerable health.

CASE XIV. A married lady consulted me in 1841, for supposed tubercular disease. On examining the chest, there was slight depression to the extent of about a quarter of an inch in the right infra-clavicular region. The nipple on the breast of the same side, was the eighth of an inch nearer the sternum than the one on the left. The respiration was masked, and percussion elicited a damp sound. The left side was clear on percussion, and respiration was puerile. The appetite was extremely capricious, the bowels irregular, catamenia regular, nights restless, urine turbid, yellow with deposit; there was constant teasing cough, with slight hæmoptysis. She had also a gnawing sensation in the pit of the stomach, with a tendency to retching. To have six leeches applied to the chest. \mathfrak{R} Olei jecoris aselli \mathfrak{z} iss; liquoris ammoniæ fortis \mathfrak{z} ss; linim. saponis compos. ad \mathfrak{z} ijj. M. To be rubbed on the chest night and morning. To take two tablespoonfuls of the following mixture three times a day. \mathfrak{R} Infusi rosæ compos. \mathfrak{z} vj; magnesiæ sulphatis \mathfrak{z} vj; olei Terebin-

thinæ ʒij. M. ℞ Extracti colocynth. comp. gr. vj ; morphinæ acet. gr. ss ; pilulæ hydrarg. gr. iij. Fiant pilulæ ij. To be taken at bed time.

The following day this patient passed several portions of tape-worm. She recovered, and by perseverance in the following mixtures for some time, together with a temporary residence at the sea side, she ultimately regained her former health, and the last account I had was highly favourable ; she has had no appearance of tape-worm since. ℞ Mist. ferri comp. ʒviijss ; olei Terebinthinæ ʒij ; tincturæ camphoræ comp. ʒij. M. Two tablespoonfuls twice a day.

CASE XV. A. O., washerwoman, complained of severe cough, with mucous expectoration, which, a few days previously, had been mixed with blood ; there was great pain in the left side, with inability to lie on it ; pulse 100, sharp and thrilling ; respiration 28, short ; bowels regular ; catamenia regular ; urine scanty, high coloured ; tongue pale and dry ; there was feverishness and restlessness. Both infra-clavicular regions were slightly depressed ; in the upper third of the left lung the expiratory murmur was harsh and prolonged, with small crepitating râle ; there was also slight dulness on percussion, anteriorly and posteriorly. On the right side, there was increased expiratory murmur, and clear percussion-sound. There was also bronchophony. The action of the heart was more distinct than natural under the right clavicle ; posteriorly it was diffused. She was ordered to take the following pills at bed-time. R. Calomelanos gr. iij ; extr. colocynth. comp. gr. vj. M. R. Potassæ nitrat. ʒss. ; tincturæ digitalis ʒi ; syrapi scillæ ʒiv ; aquæ ad ʒviij. M. A fourth part every four hours.

Nov. 19, 1843. Had rather a sharp attack of dyspnoea, with return of pulmonary hæmorrhage. A blister was ordered to be applied to the chest, and two table-spoonfuls of the following mixture to be taken every four hours : R. Olei Terebinthinæ ʒij ; tincturæ digitalis ʒi ; decocti aloes comp. ʒviij. M. Under this treatment, this patient continued to improve. She took occasionally linseed oil, cod-liver oil, and sarsaparilla, with Turpentine and lime-water ; and in the following summer had become convalescent.

CASE XVI. Mrs. W., a married lady, aged 26, without children, had for several years been in a declining state of health. I first saw her in 1848 ; she was extremely pale and emaciated, and had for some time previous parted with small quantities of florid blood. These attacks of hæmorrhage mostly occurred in the morning. Her nights were very much disturbed ; she had paroxysms of flushing, succeeded by profuse perspiration. Exploration of the thoracic viscera impressed me most unfavourably with this patient's condition. Nearly fifteen months she was confined to her room, and used Turpentine inhalations, infusions of matico with Turpentine, infusions of the water hemlock, occasionally replaced by cod-liver oil and emulsions of almond oil and hydrocyanic acid. Her chest was assiduously bathed with spirits of Turpentine, and, in addition, she had two galvanic issues established under each clavicle. In the autumn of 1848, while improving in health, she had an attack of scarlet fever, which confined her for some months longer to her room. In the following summer, she rallied sufficiently to take a trip to the sea-side, and after a residence there of some time, she was enabled once more to join the ordinary duties of the domestic circle.

CASE XVII. A. B., aged 21, a spinner in a flax-mill, was admitted under my care, into the Leeds Dispensary. The catamenia were suppressed, the skin moist, the bowels relaxed: pulse 100, sharp, small; respiration 30, irregular; severe pain in the right side; constant cough; puriform expectoration; profuse hæmoptysis; papular eruption on the right leg, with œdema of the ankles. She was cupped and blistered; and, after the first febrile symptoms had subsided, she took ferruginous preparations, with decoction of aloes, and Turpentine. In a few months, this patient recovered sufficiently to return to her work.

CASE XVIII. M. C., aged 22, had the following symptoms: constant teasing cough; greenish expectoration; severe pain in the heart and chest; bowels loose; tongue clean; night-sweats, and hectic fever.

May 3, 1843. She was ordered to take naphtha, with ling-liver oil, and to have a blister applied to the chest.

May 10. Much worse; great dulness on the right side, with absence of respiratory murmur; crumpling sound in the right infrascapular region; left side normal, with increased respiratory murmur. She had hæmoptysis, and the bowels were still loose. R. Pil. saponis cum opio gr. iv; to be taken at bed-time. R. Olei olivæ ʒi; spiritûs Terebinthinæ ʒi; tincturæ digitalis ʒi; liquoris potassæ ʒi; liquoris opii sedativi ʒss; aquæ ad ʒviij. M. Two table-spoonfuls every two hours. She improved under this treatment; and the following medicine was ordered. R. Quinæ disulphatis gr. vj; acidi sulphurici diluti ʒss; olei Terebinthinæ ʒi; tincturæ camphoræ comp. ʒij; infusi quassiæ ad ʒviij. M. Two table-spoonfuls three times a day. In a few months, convalescence was established.

CASE XIX. S. R., aged 19, dressmaker, was admitted, under my care, into the Cheltenham General Hospital and Dispensary, in October 1846. She had been, for some time, frequently seized with chills, alternately with flushing; great pain and tenderness on the left side; cough with mucous expectoration, accompanied sometimes with a small quantity of blood of a bright florid colour; small weak pulse, 92; respiration laboured, 28; obstinate constipation; urine scanty, opalescent, specific gravity 1026. She was treated with liniments of pyroligneous acid and oil of Turpentine; blisters; cathartics; and Terebinthinous medicines. The bleeding was arrested, and convalescence established. She took a course of the Pitville saline, with Turpentine, with great advantage, and has hitherto had no relapse.

CASE XX. A youth, aged 18, apprentice to a grocer, was seized with hæmoptysis on the 6th March, 1842. He had previously been, for some time, under my care, and had manifested indications of incipient phthisis. After subduing the more prominent affection, the pulmonary hæmorrhage, by means of Turpentine mixtures, counter-irritation, and local bleeding, I advised an early removal to the Isle of Man. The youth inhaled freely the Turpentine vapour, and I daily tested the vital capacity of the chest by means of the pulmometer. This, I think, tended considerably to his recovery. The habit of cautious prolonged inspiration often acts beneficially on the system of phthisical patients; emphysema may also occasionally be induced, and when this has resulted, tubercular phthisis has been known to be arrested. Two years after, when I examined this youth's chest, I could detect a marked difference in the

respiratory movements of the right and left side. He could, however, with ease displace $\frac{3}{4}$ of water in the pneumatic trough. When first I saw him it required a very forcible expiration to effect the dislodgement of $\frac{3}{4}$ lxx. When I recently heard of him, he was alive, and enjoying a tolerable share of health.

It is extremely difficult to lay down any plan for guidance in the treatment of phthisis. I have tried several remedies with apparent benefit. But though I have related the above cases, which vary in their dates from ten to two years ago, I should hesitate ere I asserted that I had cured one case of pulmonary consumption. Nevertheless, I believe the disease capable of being favourably influenced by treatment, and even of being often brought to a successful termination, as I have no doubt some of the cases I have related will hereafter testify.

Parasitic Worms. I know of no remedy comparable to the oil of Turpentine for the expulsion of parasitical animals. To accomplish this object, I place little reliance on the purgative action induced by the medicine, but I depend chiefly on the dissemination of the Terebinthinous principles throughout the animal tissues. The only way effectually to destroy these animals, is to render the aliment on which they subsist unfit for them. In fevers of a low or putrid character, in scarlatina and some of the exanthemata, worms are frequently expelled, *per vias naturales*, prior to death, by the noxious emanations which often exist in these affections, and which are destructive to parasitical life. It ought to be our aim to imitate nature; and where it can safely be done, to taint the food on which the different species of the entozoa feed, with such noxious ingredients as are known to be inimical to them. Thus Dippel's animal oil, Chabert's oil, and similar nostrums, are valuable only so far as they carry out this important object. Turpentine will effect the entire destruction of any of the entozoa and their ova, provided it be given in small doses, and continued for a sufficient length of time to saturate the system with its odour. Purgative doses of Turpentine, or enemata containing the same, decoctions of the bark of the root of the pomegranate, and many of our most esteemed vermifuges, will often suffice for the removal or destruction of lumbrici or ascarides. In tapeworm, in many instances, a different treatment is required. We may frequently succeed with the above remedies, but we occasionally fail. This is owing to the habits of the animal. It forms a nidus of gelatinous matter, into which it protrudes its head and neck after it has separated itself from the remaining joints of the body, and then, on the first intimation of danger, attaches itself to the intestine by means of its four suckers so firmly, as to defy any reasonable force to detach it. The tail of the animal is occasionally met with high up in the bowels, and even in the stomach, whilst the head occupies a position in the intestinal tract considerably lower. This may be a provision of nature to warn it of the presence of any noxious or irritating ingredient in the stomach, and thus to enable the animal to preserve its vitality. From the fluted manner in which it sometimes lays along the intestine, it must be extremely difficult to effect its expulsion, except by medicines which exert a poisonous action on it through its food. Vermifuges, when taken by the mouth, have frequently occasioned yards to be brought away by vomiting; but the animal remains secure in his retreat. If, however,

we give small doses of Turpentine, or any empyreumatic oil, the secretions will at length become so tainted, that we cause its death and subsequent expulsion or absorption: and though we may never see it expelled, we may be pretty confident that we have occasioned its death, by the subsidence of all those symptoms and distressing sensations, which it produces whilst alive.

CASE XXI. A female, who for upwards of twenty years had repeatedly expelled considerable portions of tape-worm, applied to me, in 1843. She had taken Turpentine in full doses, and had generally been much relieved by it; but the parasite still remained. I ordered half an ounce of oil of Turpentine, half an ounce of castor oil, and an ounce of the decoction of the bark of the root of the pomegranate, to be taken every morning. She parted with several yards of worm; but as I could not detect the head amongst any portion, I advised her to take two table-spoonfuls of the following mixture daily, for three months. R. Infusi quassiae ʒviij; olei Terebinthinæ ʒij; tincturæ ferri sesquichloridi ʒi. M. She attended to my advice; and, two years after, she told me that she had had no return of any of her uneasy sensations.

CASE XXII. A cook, in my employ, had for years been the subject of tape-worm, and had taken Turpentine repeatedly, without deriving any other than temporary benefit from it. I put her on a plan similar to the former; and in a few months she found her health perfectly re-established, and has hitherto had no return of the affection.

I have seen two instances in which grubs have occasioned much annoyance and distress, by depositing their ova in the urethra.

CASE XXIII. A young gentleman, about 22 years of age, had intolerable itching at the end of the urethra, which generally occurred every four or five weeks, lasted for three days, and subsided as soon as the larvæ (small white-bodied animalcules with black heads,) appeared. I advised him to inject a few drops of Turpentine in mucilage, two or three times a day, into the urethra; and to take ten drops of the same in infusion of quassia twice daily. This plan succeeded, and he recovered.

Chronic Rheumatism. In this affection I have frequently found that the Oil of Turpentine, combined with bark or guaiacum, has given considerable relief.¹

Flatulent Distension of the Abdomen. This is a distressing symptom, which often accompanies a dyspeptic state of the system, especially in gouty patients. It is sometimes attended with nervous excitement of the heart, sometimes accompanied by spasm of the bowels, and dyspnœa. For the relief of this symptom, whether originating from mal-assimilation of the food, or supervening on obstruction of the bowels, or occurring after an operation for strangulated hernia, I have found no medicine so efficacious in quickly dispelling the flatus, as Oil of Turpentine. In gouty subjects who freely secrete lithic acid, and who are much troubled with this kind of flatulency, I have rarely ever experienced that small doses of the oil of Turpentine, with or without

¹ I have also seen the alkaline camphine bath of very great service, in some long standing cases of this disorder. I have tried it in lumbago, sciatica, and gout, and can speak highly favourably of it in these affections. Many of the parties who have tried it, have derived so much benefit from it, in the alleviation of their aches and pains, that I have known them to resort to it oftener than I had advised.

colchicum, have failed to afford very great relief, more particularly when accompanied by a mild diuretic course of our Cheltenham salines. It is of the greatest importance to avoid active purgation in this state of the system.

The following is a very interesting case of the removal of a large biliary calculus, which for several days assumed a very serious aspect, threatening the life of my patient.

CASE XXIV. An elderly lady was seized with sudden sickness and pain in the præcordial region, followed by obstruction of the bowels. Large doses of calomel, croton oil, and other drastic purgatives, were given to relieve the latter; creasote and hydrocyanic acid, for the former. Local bleeding was employed, and stimulating applications and bladders containing ice, were applied in turns to the abdomen. Enemata of Turpentine and rue were also administered, without producing any favourable change. On the contrary, the sickness became so distressing, that on the sixth day of the attack, it was decided in consultation, to abandon all remedies by the mouth, and trust entirely to Turpentine clysters and the local application of ice and of epithems containing cajeput oil, Turpentine, opium, croton oil, liquor ammoniæ, etc. On the seventh day, the abdomen became enormously distended with flatus, a considerable quantity of which was withdrawn from the bowels several times in the day, by means of the tube of a stomach-pump introduced into the rectum. After the gas was pumped out, upwards of a gallon of iced water was thrown into the bowels; and as soon as this was evacuated, about a quart of warm water, containing Turpentine, was immediately injected. This plan was persevered in until the eleventh day; and notwithstanding the supervention of hiccup, and several other unfavourable indications, the patient at last obtained relief. A hard substance seemed suddenly to be disengaged from a portion of the small intestines. Shortly after one of these operations, a regular action of the bowels ensued; and on the fourteenth day she passed a biliary calculus, of the size of a walnut, and weighing ʒii, gr. xi. Its upper surface was perfectly smooth and concave, and appeared to have been attached to a smooth substance, such as the lining membrane of the gall-bladder. For twenty years, this lady had complained of pain in the pit of the stomach after eating, and had never had an action of the bowels without strong drastic purgatives. A tea-spoonful of castor oil, with ten drops of Turpentine, were ordered to be taken every morning; and in a few days she became perfectly convalescent, and has continued well from that day.

Puerperal Convulsions and Peritonitis. Those who see an analogy between puerperal convulsions and peritonitis, will be inclined to regard Turpentine as likely to prove extremely valuable in the former disorder. Repeatedly have I treated puerperal convulsions, and puerperal peritonitis, as well as peritonitis independent of the parturient state, with this medicine, and have attributed the rapid subsidence of the more prominent symptoms to its influence.

CASE XXV. A. C., aged seventeen years and a half, residing at New Town, Leeds, was seized with convulsions of a most formidable character, a few hours after she had given birth to a male child. The gentleman who attended her in the confinement, requested my advice in the case.

Detrahatur sanguis è brachio ad ℥xx. Calomelanos gr. vj. To be taken directly. R. Ol. Terebinthinæ ℥iv; magn. sulphat. ℥i; aquæ ad ℥viij. Two tablespoonfuls every two hours. Enema of Turpentine and gruel. In six hours, this patient recovered consciousness, and, from that period, progressed favourably.

CASE XXVI. M. C., aged twenty-nine, was seized, on the 5th of Feb. 1843, with intense pain in the head; great prostration of the vital powers; small, weak, fluttering pulse; abdominal tenderness; retraction of the lower extremities; constipation, and pyrexia. She had been confined two days previously of a male child. Bladders of ice to be applied to the shaven head; warm Turpentine to the bowels; Turpentine enema. V. S. ad deliquium animi. Twenty-four ounces of blood were lost, before fainting ensued. R. Calomelanos gr. iij; pulv. opii gr. ss. Fiat pilula. To be taken every three hours. R. Olei Terebinthinæ ℥ss; mist. sennæ comp. ℥viiss. M. Two tablespoonfuls an hour after each dose of the pills. This patient's mouth soon became affected, and she speedily recovered.

CASE XXVII. A female servant, residing with a patient of mine, was taken ill a short time ago, with symptoms of diffused peritonitis. The bowels were extremely obstinate, and the retching incessant. She was largely bled, both locally and generally; mixtures containing Turpentine, and pills of calomel and colocynth, were freely administered; clysters and Turpentine epithems were also resorted to. Towards the termination of the fourth day, the bowels regained their propulsive power. Large quantities of fecal matter were evacuated; and by persistence in small doses of castor oil and Turpentine, with vegetable tonics, she soon recovered her former health.

Diseases of the Eye. The testimony of several celebrated oculists has been adduced in favour of this drug in the treatment of many inflammatory affections of the eye. I am not able to say anything, either for or against its use. As yet, I have never made trial of it in disorders of that organ.

Diseases of the Nervous System. Turpentine has been considered to be of eminent service in apoplexy, hydrocephalus, and epilepsy. One case of *hydrocephalus*, a little boy, seven years of age, seemed to be very much benefited after the administration of a few enemata containing this drug, and the child eventually recovered. In *apoplexy*, I have witnessed a like result; but I do not consider this, and similar instances, sufficiently decisive to warrant me in concluding that Turpentine exercised a controlling power over the disease, otherwise than by its purgative action. In *epilepsy*, depending upon intestinal irritation, such as worms, purgative doses of, or enema containing, Turpentine, will generally be found efficacious. Nevertheless, the majority of epileptic patients will not derive any very great advantage from it. In such examples, we must ascertain the cause of the malady, which may often be of a character over which medicine possesses but little anti-convulsive influence.

Injuries occurring from Burns or Scalds. I have often seen these much benefited by the Terebinthinous unguents, or liniments, which I have recommended to be applied.

CASE XXVIII. A young female was dreadfully scorched by the sudden ignition of some foul air, pent up in a water cistern. She had inad-

vertently placed a lighted candle on the edge of the cistern whilst she removed the lid—an instantaneous explosion followed this act. She was thrown down; and on examination, was found to be considerably burnt about the hands, face, neck, and right arm. The following liniment was applied to the denuded surfaces, and other appropriate treatment enjoined. R. Pulveris opii gr. viii; liquoris calcis ʒi; olei Terebinthinæ ʒiv; olei lini ʒss. M. ut fiat linimentum. She soon recovered from these injuries.

Pertussis. In the second and third stages of this affection, I have frequently found liniments of Turpentine, with opium, rubbed on the spine and chest, of considerable value in mitigating the severity of the paroxysms. The inhalation of the vapour has also appeared to me to exert a calmative influence on the convulsive character of the cough.

CASE XXIX. Master C., aged 4 years, a stout, healthy-looking child, was the subject of whooping-cough, in the spring of 1845. The paroxysms were extremely violent, of frequent recurrence; and, as he had already lost two brothers by the same affection, the case caused considerable anxiety. I requested that he might be confined in a room, the temperature of which should not be less than 65° Fahr., by night as well as by day. To attain tranquillity of mind (a necessary item in the treatment of this malady), I desired that all scenes of excitement should be avoided; for I have known this to prolong the disorder, and even to be the cause of a fatal termination. A bath at 100°, containing half an ounce of the carbonate of potash to six gallons of water, was used three times a week; and the back and chest were rubbed every night with the following liniment. R. Olei Terebinthinæ purif. ʒiv; liquoris opii sedativi ʒij; olei succini ʒiss; linimenti saponis comp. ad ʒiss. M. The bowels were relieved by gentle laxatives, and the child was allowed to drink, *ad libitum*, of the following potion. Bicarbonate of potash, two drachms; extract of liquorice, half an ounce; honey, two ounces; boiling water, one quart. The effect of this treatment was very apparent in the altered and less suffocative character of the cough, which, after the first fortnight, rarely occasioned much uneasiness, except after a very long sleep. Change of air, with decoction of bark and small doses of Turpentine, and the occasional exhibition of the compound kino powder at bed-time, completed the cure.

I have recently witnessed very great improvement follow the immersion of the lower part of the body, as far as the chest, in an alkaline camphine bath. The proportion of camphine ought not to exceed, (for children under six years of age), from two to three drachms with three or four ounces of soda. The vapour of the bath, diffused through the sleeping apartment, and inhaled into the lungs, has seemed to have a very beneficial and tranquillizing tendency in this disorder. There can be no doubt also, that the absorption of the alkali, by rendering the pituitous secretion from the pulmonary organs less adhesive and tenacious, has contributed in no small degree to the relief obtained.

I have now concluded my remarks upon the medicinal properties of this drug. In the evidence which I have adduced, I have endeavoured to guard myself from an over-weening confidence in its virtues. In the treatment of any case, however simple, much must be left to the

judgment of the practitioner under whose care it has come. Like many other medicines, Turpentine may fail in producing the effects desired, if all the circumstances which may modify its action be not duly taken into account: but, when judiciously administered, I believe it to be one of the most valuable remedial agents which we possess.

Cheltenham, March 1850.

ON THE CONNEXION OF UTERINE AND OVARIAN DISEASE.

By EDWARD JOHN TILT, M.D., Physician to the Farringdon General Dispensary, and to the Paddington Free Dispensary for the Diseases of Women and Children.

[Read before the Westminster Medical Society, March 9, 1850.]

WHY should the prognosis of Uterine Disease be more difficult than that of other organs? Why should very slight Uterine lesions be sometimes accompanied by intense reaction? Why should it ever happen that patients, when cured of these lesions, still continue to suffer as much as they did before treatment? It seems to me, that speculists have chiefly to guard against the too narrow circumscription of their field of investigation; for by this means they likewise circumscribe their comprehension of the disease, which they ought to study in all its numerous bearings. The French pathologists are not free from this reproach; and in proof of this assertion, the very interesting discussion on Uterine Disease, now proceeding in the French Academy of Medicine, may be referred to; a discussion in which many of those who have taken part will, in future, be considered illustrious among the founders of uterine pathology. Most of those who have spoken in that discussion, seem to look upon the Womb as an unconnected organ, to which alone is confided the whole task of generation; and, losing sight of its intimate relation with the other organs which form the reproductive system, they are often at a loss to explain the phenomena of its diseases, and are, therefore, in their opinions, completely at variance with each other. In the hope of suggesting an answer to the questions proposed, I offer the following remarks on the connexion between Uterine and Ovarian Inflammation.

The Ovaries are connected with the Uterus anatomically, physiologically, and pathologically. Without alluding to many amongst the inferior animals, wherein the Womb and Ovaria are always anatomically connected, and merely mentioning, that, according to Müller and Rosenhaller, they are likewise anatomically connected in woman during the first months of foetal life, I shall remark, that whenever the system of reproduction is called into full activity, the fimbriated extremities of the Fallopian tubes clasp the Ovaries as if instinctively, and the generative intestine becomes, for the time being, an apparatus which is one and undivided, each organ being linked with the other to subserve the common end for which they are physiologically associated. The Uterus is, therefore, an intermediate organ, receiving its stimulus from the external